

Contact: [C. Scholl](#)

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Quote of the Month: "Learn from yesterday, live for today, hope for tomorrow. The important thing is to not stop questioning." - Albert Einstein

A WORD FROM THE:

Administration

Accelerator Div.

ES&F Div.

Acc. R&D Div.

Operations

► Arrivals/Departures

 Safety Stats

NOTE FROM OUR CHAIR: Thomas Roser



We are now three weeks into the RHIC pp physics run and we established new record luminosities for pp operation using the new polarized source and optimized RHIC operation for high intensity beams. In particular, the new bunch-by-bunch longitudinal damper has kept the bunches stable and short even at the highest beam intensities.

The expectations are that with the continuing resolution budget and the sequestration for the rest of this fiscal year we will be able to run RHIC for at least 15 weeks. And just weeks after the FY13 budget was finally passed the discussion for the FY14 budget are getting under way with the release of the President's budget on April 10.

Starting this month the Accelerator Test Facility (ATF) and the Muon Accelerator Group will join us coming from the Physics Department. **Welcome to all the new members of C-AD!** And finally, congratulations go to Erdong Wang in the Accelerator R&D Division for receiving the prestigious Goldhaber Fellowship.

FUN TIME - **Science Crossword Puzzles** : [ATOMS & MATTER](#)

[CONFERENCE PROJECTIONS DUE](#): **DUE APRIL 12TH**

DID YOU KNOW??

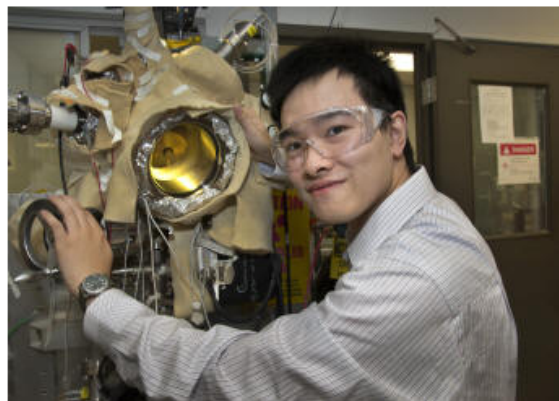
Steve Bellavia has a hobby of taking astronomy photos? Take a look at some of the photos he took [of the moon and a comet](#).

ATF & the AAG is moving from Physics to C-AD! As of April 1st these groups will be part of the Collider-Accelerator Dept.

Check out some old photos! Employees shared some of their historical pictures of the lab, [check them out!](#)

There are new entry & exit procedures to access the AGS Tunnel? Review the [slides and handouts](#).

Suresh Srivastava was granted New President-Elect of World Association of Radiopharmaceutical Molecular Therapy! [Read](#) more about Suresh's new role.



Erdong Wang received the Goldhaber Fellowship! Look for the piece that will be written about him on the BNL Homepage.

EVENTS/SEMINARS...



Check out the [BNL Calendar](#) for upcoming events & Seminars or the [Upcoming Conferences & Workshops](#) page for workshops and Conferences happening at BNL.

April 2 ~ (Bldg 510 | 3:30) Physics Colloquium, "The New Muon $g-2$ & EDM Experiment at FNAL" Presented by William Morse

April 5 ~ (Bldg 911B | 3:30) Accelerator Physics Seminar, "Verticle FFAG for a Possible Accelerator Driven Subcritical Reactor Application" Presented by Dr. Stephen Brooks

April 9 ~ (Bldg 510 | 3:30) Physics Colloquium, "40th Anniversary of QCD. Experimental viewpoint. High pT physics from ICHEP 1972 to ICHEP 1982," Presented by Michael Tannenbaum

April 11 ~ (Bldg 510 | 12:30) Special Nuclear Theory Seminar, "Strange and Charmed Mesons in Nuclear Matter and Nuclei" Presented by Rob Pisarski

April 12 ~ (Bldg 510 | 2:00) Nuclear Physics & RIKEN Theory Seminar Presented by X-G Huang

April 16 ~ (Bldg 735 | 11:00) CFN Colloquium Series, "Solar Energy Conversion Using Artificial Atoms, Molecules and Solids" Presented by Tianquan Lian (Emory U.)

April 26 ~ (Bldg 911B | 3:30) Accelerator Physics Seminar, "Accelerators for Hadron Therapy: A High-Gradient Linac Solution" Presented by Dr. Silvia Verdu-Andres

Rob Hulsart & his Wife Maria have a New Baby Girl! Her name is Kate and she was born March 17th ~ This make 2 girls for them! CONGRATULATIONS!!



IN OTHER NEWS...

A Boulder-Size Asteroid Caused Fridays (March 22) East Coast Meteor ~ The dramatic fireball that lit up the skies on Friday was caused by.. [Read more](#)

LRO's LAMP ultraviolet spectograph observes mercury & hydrogen in GRAIL impact plumes ~ [Read](#) about when NASA's twin GRAIL spacecraft made their final descent for impact onto the Moon's surface last December.

Antiprotons Reflect a Magnetic Symmetry ~ One of the big outstanding questions in physics is why the universe contains more matter than antimatter. To help answer the question, the [ATRAP experiment](#) at CERN has measured the magnetic moment of the antiproton.

Check out MSN's ~ [19 high-tech outfits](#) of the future.

WHAT'S GOING ON IN OUR NEIGHBORHOOD?

Interested in Cycling? Why don't join in on the [Biking & Birding](#) ride happening up in Brooklyn, NY; [ALS Bike Trek](#) around Long Island?? Also for upcoming events in May there is the the [Bike Expo](#), [TD Five Boro Bike Tour](#) in NYC and the [Ride to Montauk](#) starting in Babylon! Do you like Racing? If you do you should check out the [Grant's Tomb Criterium](#)!

Interested in Running or Walking? Check out the [Running April Calendar](#) for the following events: *Aspire 10K*, *Manhasset Crew Off the water 5K*, *Shakonna Grier Mem 4 Mi Run/ 1 Mi walk*, *LIRRC Jack Dowling 4 Mi*, *Katy's Courage 5K*, *Doug Wood 5K Trail Run*, *Earth Run II 5K*, *Pineapple 5K on/off Road obstacle*, etc ! There is also the *Rockaway NY Running Series* and *Brooklyn Marathon* in Oct. [The Survival Race](#) is May 4th Register now!

Check out the Bands coming to LI!

[The Paramount](#) in Huntington: Don Henley, The Bouncing Souls, R5 Load Tour, Andrew McMahon, Limp Bizkit and more..

[The Emporium](#): Norma Jean, Badfish: A Sublime Tribute, Bret Michaels, Jamey Johnson and more..

[Patchogue Theatre of Performing Arts](#): The New Musicals Project, Soundswell, Patchogue Jam 6, Sandra Bernhard, The Bacon Brothers (MAY) and more..

[Boulton Center of Performing Arts](#): Ben E. King, John Lennon Re-Imagined by Nutoptions, Ana Popovic, NRBQ, the THE BAND Band, and more...

[The Nassau Coliseum](#): Rick Ross, Mirana Lamber, 98 Degrees (MAY), NKOTB (MAY)

[Westhampton Beach Performing Arts](#): Robert Cray Band, Rita Rudner, Tedeschi Trucks Band & More..

How about some Comedy? Former SNL Stars (The Paramount, Huntington); CAPONE, Big Laughs in Bayshore (MAY) (Boulton Center),



Hofstra University 30th Annual Dutch Spring Music Festival! The Dutch Festival Celebrates the Dutch culture with Kids Activities, Music, Food and Annual Plant Sale. Sunday, May 5, 2013 From 11 A.m. To 5 P.M., At The South Campus..([Click Here](#) for more info)

For the Kids: Mickey's Music Festival & X Factor Auditions @ [The Nassau Coliseum](#). *Pajanimals Live* (NYCB Theatre at Westbury) *Wacky Wednesday* at Theatre Three in Port Jefferson. *Earth Day Wildlife Presentation* at the Cold Spring Harbor Whaling Museum. *The Three Little Pigs* at the Westhampton Beach Performing Arts Center.

DAY AT THE VINEYARDS...

Macari Vineyard ~ [MATTITUCK] April 13 (12~5) Olga Elkind Art Show

Duckwalk North ~ [SOUTHOLD] No Events Posted

Duckwalk South ~ [WATER MILL] No Events **Posted**

Castello di Borghese Vineyard & Winery ~ [CUTCHOGUE] ** Vineyard Tours & Wine Tastings Every Saturday @1pm & FREE Jazz Every Saturday (2~4) with Marguerite Volonts** April 6 (12~4) Bridal Showcase; April 13 (6:30~9:30pm) "Spring Awakening" An evening of Opera; April 20 (8~9:30pm) Haft2Laugh Comedy Night; April 27 (6~7pm) Art Auction; (May) 11 (2~4pm) Olive Oil Showdown & Tasting

Jamesport Vineyards ~ No Events Posted

Martha Clara Vineyards - [RIVERHEAD] April 3~ June 12(7~9pm) Wine & Photography; April 6 (7pm) Winter Concert ~ Acoustic Tribute to The Beatles; April 6 ~FREE~ (2~5pm) Music with Sly Gerald; April 6 (5~9) New Beginnings Fundraiser with Ricky Lee; April 7 (11am) Vines & Canines, ~FREE~ (1~4pm) Music with The In Crowd; April 13 ~FREE~ (2~5) Music with Playn & Symple; April 14 ~FREE~ (1~4) Live Music with Hart & Soul; April 20 ~FREE~ (2~5) Live Music with The Executives Led by Keith Maguire, (7:30pm) Allman Brothers Tribute Band; April 21 ~FREE~ (1~4pm) Music with The Sea Monkeys; April 27 (11am) Vines & Canines, ~FREE~ (2~5) Live music with Rock It Fuel; April 28 (12~3) Bark for Life, ~FREE~ (1~4) Music with Henry Haid & Only In America Band; **MAY** 4 ~FREE~ (1~5) Music with The Sugar & Spice Soul Band; May 5 ~FREE~ (1~4) Cinco de Mayo...

Palmer Vineyards - [RIVERHEAD] April 7 ~ Paint & Sip; April 13 ~ Doggies Social Walk; April 20 ~ Wine & Cheese Pairing; April 21 ~Winetastic!

Pindar Vineyards - [PECONIC] *Live Music (1~5pm)* March 2: Ken Sambolin; March 9: Mark Eisemann & (1~3pm) Barrel Tastings; March 16: Bob Carney *St. Patrick's Day Basket Giveaway*; March 23: Tommy Sullivan & (1~3pm) Barrel Tastings; March 30: Ken Sambolin

Baiting Hollow Farm Vineyard ~ [CALVERTON] *Music every Sat & Sun from (2~6pm)* April 6: Ricky Roche; April 7: Top Cat; April 13: Southbound; April 14: Old School; April 20: Ricky Roche; April 21: Acoustic Soul; April 27: Tommy Keys; April 28: Denise Given and Frank Filipo; (May)4: Acoustic Soul; (May) 5: Top Cat; (May) 11: Old School; (May) 12: Denise Given & Conrad Taylor **Out Door Season Officially Opens May 18th!*

NOTE FROM OUR ADMINISTRATION: Stephanie LaMontagne-McKeon



Please check back next week, there is no new news to provide at this time.

Sorry for the inconvenience.

NOTE FROM OUR ACCELERATOR DIVISION: Wolfram Fischer



The RHIC Run-13 is under way, and we are in physics mode. This was the first year in which the operations group led the machine setup until we reach physics, with Travis Shrey, Greg Marr, and Vincent Schoefer coordinating all activities. This was very successful with setup and ramp-up taking up the exact amount of time planned, despite a large amount of snow at the beginning. We are using the new polarized proton source, and with the new lattices designed for e-lens operation new luminosity records were achieved already. The polarization is, however, still lower than last year. Bringing the polarization up is now the main focus.

Meanwhile BLIP operation continues with high reliability, and BLIP operation at 200 MeV with full current is being prepared. The NSRL run started as planned on 18 March.

The catalog of all Technical Notes is <http://www.rhichome.bnl.gov/AGS/InternalReports.html>, and it is linked from both the Department and Accelerator Division home pages.

NOTE FROM OUR EXPERIMENTAL SUPPORT & FACILITIES DIVISION: Phil Pile



The STAR and PHENIX experiments are now into their fourth week of data taking for Run 13. Although record peak luminosities have been achieved, RHIC time at store and polarization performance could be better. Even so, the experiments are being delivered integrated luminosities and figure of merit luminosity weighted polarizations well above minimum projections. As was the case this time last month we do not yet have a final budget from DOE. It is likely, once we get final budget guidance, we will fall short of a 20 week run. Our plan, however, remains unchanged -- to focus on 255 x 255 GeV polarized protons with an option for a low energy gold-gold run at the end, with the end date to be determined.

Preparations to move the g-2 experiment to FNAL continue. Most of the muon beam line components were loaded on trucks last month and shipped to FNAL. This month the plan is to ship to FNAL that part of the muon storage ring magnet steel that has to be removed to allow access to the cryostats housing the superconducting coils. If all goes according to plan the 50 foot diameter coil/cryostat assemblies will be shipped in June.

NSRL Run13A for NASA began on 18 March and will continue through 10 May. Run 13A will be followed after a short break by Run 13B, presently scheduled to begin on 29 May and continue until 28 June..

BLIP has been running since 17 December and will continue through June and possible into July.

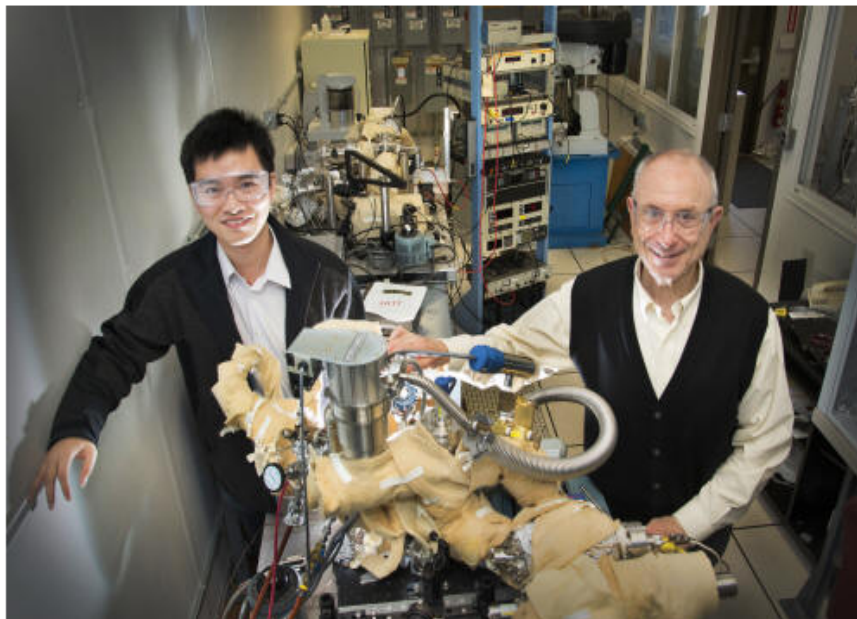
NOTE FROM ACCELERATOR R&D DIVISION: Ilan Ben-Zvi



The Accelerator R&D Division added two groups: The Muon Acceleration Group headed by Robert Palmer and the Accelerator Test Facility, headed by ATF interim director Igor Pogorelsky. An all hands meeting of the division was held on April 1 to welcome the two new groups, inform their members on how C-AD operates and allow the various groups of the division to get acquainted with the projects, capabilities and talents of the various groups.

The [organizational chart of the division](#) has been updated with the new groups and some changes were also made to the structure of the previous groups. The division comprises now of six groups. In addition to the two new groups mentioned above, we have the Accelerator R&D, headed by Vladimir Litvinenko, Superconducting RF headed by Sergey Belomestnykh, photocathode group headed by John Skaritka, and the LHC Accelerator R&D group headed by Qiong Wu. The division is now a very diverse accelerator science group and world class in its achievements and strength.

The Accelerator R&D Division, indeed the whole Collider~Accelerator Department, is honored by the award of a Goldhaber Fellowship to Erdong Wang, member of the photocathode group. The Goldhaber Fellowship is the premier BNL Post Doctoral Research Fellowship, awarded to candidates with exceptional talent and credentials. Congratulations Erdong!



Finally, it is time to recognize a significant service anniversary at Brookhaven National Laboratory for two of the Accelerator R&D Division members. David Pate reached 25 years of service with BNL, and Brian Sheehy reached 15 years at BNL. David and Brian, we are indebted for your dedication and commitment for all this time.

NOTE FROM OPERATIONS: Paul Sampson



Run 13 continues this month, with the goal of stable and high efficiency running being balanced with development and improvement in the delivered luminosity as well as construction, testing and commissioning of e-lens components. Development of a new lattice, which includes optics for the e-lens has been completed and has been adopted as the standard for polarized proton running. New systems such as the new 9MHz and bouncer RF cavities as well as the bunch-by-bunch dampers are presently in use.

All of the injectors for RHIC continue their reliable operation. The ABS source for OPPIS is providing polarized proton beam and showing improvements with time and tuning. NSRL run 13A began on March 18th and has been running with beams provided from EBIS since.

The Siemens Motor Generator set, which has been running since the repair of the motor rotor this shutdown, will be having some preventative repair done behind a store and maintenance.

RHIC is running Physics when ever possible. A present, though running well between failures, there are several factors that are impacting machine reliability. One is related to the local power grid variations during load switching by LIPA. This has caused many power dips and subsequent lost stores as well as adding complication to recovery. When at store, experiments are using the beam and recording physics data well.

Work on the e-lens continues both inside and out of the ring on Maintenance Days and behind other outages. Testing of the magnetic elements and conditioning of the Blue electron gun is expected this month with the possibility of electron beam in the Blue e-lens next month.

To view a list of the approved work for maintenance days or the shutdown, go the [Job Request System](#) and select the appropriate date. This link is behind the firewall and requires privileges to view.

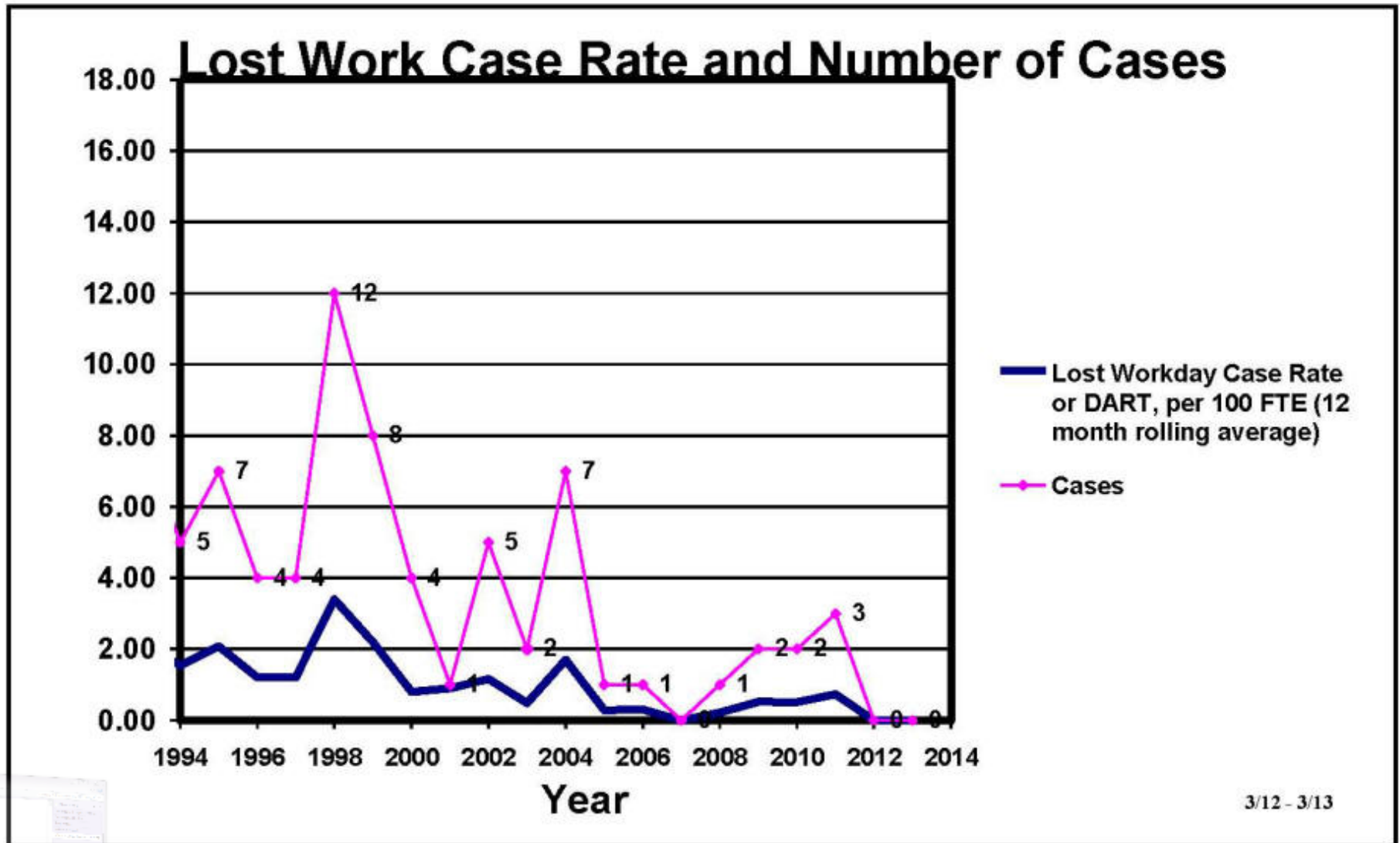
For schedule updates see: [This Week, which can be viewed by all.](#)

ARRIVALS: Welcome!

No new arrivals this month..

DEPARTURES: Farewell, you will surely be missed..

Henry Schnakenberg, (BLIP) ~ Last Day was in March 2013



C-AD Occupational Injury Statistics

For Year 2012 For Year* 2013

First Aid Cases	5	1
Recordable Cases	3	0
Lost Work Cases	0	0

*** Calendar Year through 3/13**

PHOTOS BY: STEVE BELLAVIA

Steve took these photos Thursday, March 14th at the Riverhead campus of Suffolk County Community College, just before and during an astronomy class that he is the PA (Professional Assistant) for (running the telescopes and the planetarium at the college in the evenings). Dr. Sean McCorkle is the Professor on Tuesday and Thursday evenings, also a BNL employee.



The sunset shows a vertical “sun dog”. Like a mini-rainbow caused by ice crystals in the atmosphere. A nice treat while waiting for the comet to appear.



The crescent moon was used to focus the camera-telescope combination Steve wanted to use for photographing the comet. Normally he said he would use stars for the focusing, but the comet would be out in twilight, when not many stars would be visible.



And the highlight was the comet itself. This is comet C/2011-L4, or "Pan-STARRS", named after the telescope in Hawaii that discovered it.

The moon and comet were taken with my Canon EOS T3 DSLR camera combined with a portable 80mm refractor. (below) The sun dog was with the stock camera lens set at 55mm focal length.

Some of Frank Dusek's personal Reflections on 43 years at BNL ~ AGS History
An Ode to the AGS/RHIC or an old Watchstanders' Lament

We've serviced Bubble chambers ~ 30 inch to 7 foot

Fixed viruses, RF cavities, bugs, glitches & troubles by the score

Repaired buckets, Collimators, PS's & Cu Splitters, Saved ~A ~Watt

DataCon & *Dibbuk*, Beam Separators, Cooling Towers one to four

Dealt with the AEC, DOE, OSHA, DOD, Snakes (warm, cold

& Siberian!) the Lord O' The Rings, nursed the cryostat for the 8 Degree, and more

X & Y Arcs, AC/DC/RF – it's all in the "Store"

Survived Stack fires, floods, snowstorms, leaky roofs, strikes & RIFFS

Wrote miles of code, *climbed* many a PLC rung

Moved tons of shielding ~> iron, concrete, *Boraxo* and lead

Swept the berms, trenches, IRs and even the 912 floor

Helped *Woody, Leif, Angelica & Kevin* hit targets of H₂, D₂, Au

We like our ions heavy, protons polarized, gluon soup nice n' *hot*

Ran LINAC, *Booster*, magnets dipole, quad, sext, EVA, MPS, O'Neill, ARGO & oct

Tuned SWYD to A, B, C, D, FEB, U, V, W, X, Y & PTR Lines

Magnets small and large that Spin & Flip, Tune & Jump the beam

Kept NASA now NSRL runnin'~ they're going to MARS some day!

Pulled thousands of feet of cable, from co-ax to 535 MCM for

SWYD > LESB > EVA > PTR > g-2 > NSRL > Phenix, Brahms, Phobos & STAR

It's another tight fiscal year at Camp Upton, where all the engineers are strong
the technicians good looking and the physicists above average.

Sequester be dammed we're gonna build eRHIC!



Robert Todd's Uncle Norman Hammel (his Mom's sister's husband) was drafted in WWII and reported to **Camp Upton**.

One of the first things he did upon arrival was a flight simulator test. He did not do so well on the test so he served as a Flight Engineer in the 303rd Bomb Group Hell's Angels. Above is a picture and a [story](#) about one of their many missions over Germany (his Uncle is in the bottom row on the left). He is alive today and sharp as a tack. Hi uncle tells him one of his pilots was 18 years old. He also had a buddy that preferred sleeping in the ball turret on long missions....these were brave young men!



Old Picture(s) of the BOOSTER (Produced by)



Isabelle Assembly ~ Bldg 902 in 1982 (Produced by S. Gill)



Old AGD Group in the 60's (Produced by G. Mahler)



Check out this old picture of the Booster Group (Produced by T. Higgins)



"In 1969, thousands of Long Islanders came to Brookhaven National Laboratory (BNL) to see a piece of the moon ~ a 12~gram chunk of a larger rock brought back to earth by Apollo 11 astronauts. BNL scientists analyzed numerous such samples of lunar rocks and soil, finding, for example, that the rocks they examined had been on the moon's surface 30~50 million years." (Produced by C. Mahler)



In 1996 Patricia O'Grady is attaching copper pads in the Yo5Q3 interconnect in the RHIC Tunnel